

WHAT IS CLAIMED:

1. Within a laser ablation system, a nozzle assembly and a laser beam that is emitted through said nozzle assembly to remove materials on a target, said nozzle assembly comprising:
 - a nozzle having a top end; and
 - a window on said top end of said nozzle, said window includes at least one aperture,wherein said laser beam is emitted through a particular one of said at least one aperture.
2. The nozzle assembly of claim 1 wherein a diameter of said particular aperture is greater than or equal to a diameter of said laser beam.
3. The nozzle assembly of claim 1 wherein a diameter of said particular aperture is less than a diameter of said laser beam.
4. The nozzle assembly of claim 1 wherein said window is transparent.
5. The nozzle assembly of claim 1 wherein said window is opaque.
6. The nozzle assembly of claim 1 wherein a shape of said particular aperture is any one of a circle, a square, or a rectangle.
7. Within a laser ablation system, a method to reduce debris deposition at one or more points on a window, comprising:
 - generating a laser beam; and
 - emitting said laser beam through an aperture at a particular one of said one or more points on said window.
8. The method of claim 7 wherein a diameter of said aperture is greater than or equal to a diameter of said laser beam.

9. The method of claim 7 wherein a diameter of said aperture is less than a diameter of said laser beam.
10. Within a laser ablation system, a nozzle assembly and a laser beam that travels through said nozzle assembly to remove materials on a target, said nozzle assembly comprising:
- a nozzle having at least one channel at a top end of said nozzle;
 - a window on said at least one channel; and
 - a gas that flows through said at least one channel,
- wherein said gas flow reduces debris deposition on said window.
11. The nozzle assembly of claim 10 further comprising
- at least one exit channel on a side of said nozzle through which said gas evacuates from said nozzle.
12. The nozzle assembly of claim 10 wherein said gas is any one of nitrogen, argon, air, dry air, or a mixture of gasses.
13. The nozzle assembly of claim 10 wherein said window includes at least one aperture.
14. Within a laser ablation system, a method to reduce debris deposition on a window, comprising:
- moving a gas through at least one channel that contacts said window to reduce accumulation of said debris on said window.
15. The method of claim 14 further comprising
- evacuating said gas from said at least one channel.

16. Within a laser ablation system, a nozzle assembly and a laser beam that is emitted through said nozzle assembly to remove materials on a target, said nozzle assembly comprising:

a nozzle that includes a central channel through which said laser beam travels from a top end of said nozzle to a bottom end of said nozzle; and

a window on said top end of said nozzle,
wherein said central channel is threaded.

17. The nozzle assembly of claim 16 wherein said nozzle includes at least one channel at said top end of said nozzle, and wherein said window is in contact with said at least one channel, and further comprising a gas that flows through said at least one channel, wherein said at least one channel is threaded.

18. The nozzle assembly of claim 17 further comprising
at least one vacuum channel on a side of said nozzle, said at least one vacuum channel evacuates said gas from said threaded central channel; and
at least one exit channel on said side of said nozzle, said at least one exit channel evacuates said gas from said at least one threaded channel.

19. The nozzle assembly of claim 16 wherein said window includes at least one aperture.

20. The nozzle assembly of claim 17 wherein said gas is any one of nitrogen, argon, air, dry air, or a mixture of gasses.